IN THE UNITED STATES DISTRICT COURT
FOR THE WESTERN DISTRICT OF PENNSYLVANIA

MINELAB ELECTRONICS PTY LTD,	)	
	)	
Plaintiff,	)	Civil Action No. 16-1594
	)	
v.	)	Judge Mark R. Hornak
	)	
XP METAL DETECTORS and	)	
DETECTOR ELECTRONICS CORP.,	)	
	)	
Defendants.	)	

OPINION

Mark R. Hornak, United States District Judge

Minelab Electronics PTY LTD ("Plaintiff") filed this lawsuit alleging that XP Metal Detectors and Detector Electronics Corp. ("Defendants") are contributorily infringing Claims 10 and 15 of U.S. Patent 7,310,586 ("'586 Patent"), of which Plaintiff is the assignee. Defendants moved to dismiss under 35 U.S.C. § 101, arguing that the claims at issue are directed to patent-ineligible subject matter. The parties fully briefed the issues, ECF Nos. 22-24, 27, and the motion is ripe for disposition. For the reasons that follow, the Court will deny Defendants' Motion to Dismiss.

I.   BACKGROUND

Metal detecting, it turns out, is not as simple as one would think. Unless the operator achieves some level of proficiency in setting the parameters on the metal detector, she might end up turning up targets that she has no interest in finding (what's called "trash" in metal detector parlance), while leaving behind the stuff that she actually wants to find. Setting those parameters just right is apparently no easy task, so the inventors of the '586 patent set out to create a better detector. They also saw another problem with prior art metal detectors in need of solving:

because "the nature of the predominant 'trash'" and "[t]he nature of the desired target" changes from one place to another, a detectorist had to "own several complete detectors to enjoy the advantage of having maximal sensitivity to disparate targets in different environments" – one to find gold, for example, and one to find relics. '586 Patent, col.1, ll. 33-37.

The inventors proposed to address these two problems by creating a metal detector that could receive operating parameter data from an external source (either a computer or another metal detector), store the data in electronic memory within the metal detector, and modify the operating parameters of the metal detector "to conform to the set of values of operating parameters specified by the operating parameter data." ECF No. 18, at 5 ¶ 22. As they saw it, this would allow "a less skilled operator . . . to successfully use a single metal detector in multiple operating environments and with different types of targets and trash." *Id.* The claimed method also allows that "less skilled operator" to "benefit from the knowledge of a more experienced operator or the wisdom of the detecting community" by allowing members of the detecting community to share operating parameter data with each other. *Id.*

The claimed invention is described in the Abstract as:

A metal detector adapted to generate a transmit search signal and to receive a receive search signal, and to analyse such received search signal, wherein the detector is adapted to allow a selection of operating parameters for each of these functions, said selection being effected by the storage as data in a memory of such selection, charaterised in that the detector is adapted to allow such stored data to be modified in accordance with data in an external store, further characterised in that there is a digital data communication transmission program, adapted to effect a transmission of some or all of the stored data through a data transmission means to enable a further metal detector to receive and store for use in such further detector the said data.

'586 Patent, Abstract. The patent includes three independent claims (claims 1, 10, and 16).

Claim one reads:

1. A metal detector adapted to general a transmit search signal and to receive a search signal, and to analyze such received search signal,

wherein the detector is adapted to allow a selection of operating parameters for said receipt and analysis, said selection being effected by storage of data in a memory, characterised in that the detector is adapted to allow such stored data to be modified to align with stored data in an external store, wherein the external store is a memory which is both outside of and spaced from the metal detector, and also from the memory within the metal detector which stores the data effecting the operating parameters;

further comprising a digital data communications program, adapted to effect a transmission of some or all of the stored data through a data transmission link, thereby enabling a further metal detector to receive and store, for use in such further detector, said data,

and wherein the operating parameters to be selected include a discrimination pattern, said discrimination pattern including at least one range of amplitude of a conductance component of a receive search signal and at least one range of amplitude of an inductive component of a receive search signal.

'586 Patent, col. 8, ll. 39-59. Claims two through nine depend from claim one.

Claim 10 reads:

10. A method for operating a metal detector of a type which includes the ability to select values of operating parameters and to store such values as data, the method including the steps of:

a. receiving operating parameter data via an electronic transmission link from a data source external to the metal detector, the operating parameter data being a set of values of operating parameters,

b. storing the operating parameter data in an electronic memory within the metal detector, and

c. modifying the operating parameters of the metal detector to conform to the set of values of operating parameters specified by the operating parameter data,

wherein the electronic transmission link includes a wireless connection transmitting through space between the metal detector and the external data sources.

'586 Patent, col. 9 ll. 22-36. Claims 11 through 15 depend from claim 10 and recite "[a] method for operating a metal detector as in claim 10 wherein the data are received from another detector of the same or similar type;" "wherein the data are received from a computer[;]" "wherein the computer received the data by download from a

3

remote computer system by way of a network of computers[;]" "wherein the electronic transmission link includes a detachable wired connection leading from the exterior of the metal detector to the external data source[;]" and

wherein the operating parameters include one or more of:

a. filers to be applied to a receive search signal;

b. an amplitude range of conductance component of a receive search signal;

c. an amplitude range of an inductive component of a receive search signal; and

d. an information set indicating the values of one or more user modifiable settings of the detector.

Id., col. 9, ll. 38-42 – col. 10, ll. 1-18.

Claim 16 describes:

16. A set of two metal detectors of a type which includes the facility to select values of operating parameters and to store such values as data, the set including

a. a first metal detector adapted to store data values in first electronic memory, the data values representing parameters used to determine a search strategy used by said first detector to maximize the likelihood of detection of a selected target, and to effect the transfer of said data values over an electronic data transmission link, and

b. a second metal detector adapted to receive data values of the electronic data transmission link, and to store said data values into a second electronic memory, the second metal detector being further adapted to use said data values to effect a search strategy and to maximize the likelihood of detection of the same selected target.

Id., col. 10, ll. 19-34. Claim 17 depends from claim 16.

In October 2016, Plaintiff filed this patent infringement suit alleging that the DEUS metal detector, which is made by XP and distributed by Detector, infringes "at least claim 10 of the '586 patent." ECF No. 1 ¶ 12. After Defendants moved to dismiss, Minelab filed an Amended

4

Complaint, which in most respects is similar to the original Complaint except that it also claims that Defendants contributorily infringe claim 15 as well as claim 10. ECF No. 18 ¶ 24.

Plaintiff alleges that the DEUS metal detector infringes these claims because it "can be operated in a manner where data stored in the metal detector can be modified by data stored in an external source." ECF No. 18 ¶ 26. The DEUS detector also "include[es] a wireless digital link so that the operating parameters of the metal detector can be adjusted through wireless signals received from an external data source in the form of a remote control unit, which is described as being capable of adjusting the detection settings by wirelessly conveying operating parameter data to the metal detector." *Id.* Plaintiff further alleges that "the DEUS metal detector is advertised as including a wireless digital link so that the operating parameters of the metal detector can be adjusted through wireless signals received from an external data source in the form of a remote control unit, which is described as being capable of adjusting the detection settings by wirelessly conveying operating parameter data to the metal detector." *Id.* ¶ 28.

Defendants now move to dismiss the Amended Complaint, arguing that the claims at suit are not patent eligible under 35 U.S.C. § 101. They also contend that Plaintiff has not plausibly alleged that claim 15 is being infringed.

II.   LEGAL STANDARD

A complaint must allege facts "sufficient to show that the plaintiff has a 'plausible claim for relief.'" *Fowler v. UPMC Shadyside*, 578 F.3d 203, 211 (3d Cir. 2009) (quoting *Ashcroft v. Iqbal*, 556 U.S. 662, 679 (2009)). Otherwise it must be dismissed for failure to state a claim upon which relief may be granted. Fed. R. Civ. P. 12(b)(6).

Thus, in a patent infringement case, patent eligibility takes center stage. If the patent that was allegedly infringed is directed to patent-ineligible subject matter, the complaint does not

state a claim upon which relief can be granted. The 12(b)(6) stage, then, is the proper one at which to address § 101 patent eligibility challenges. *See Intellectual Ventures I, LLC v. Erie Indem. Co. et al.*, 134 F. Supp. 3d 877 (W.D. Pa. 2015) (resolving patent eligibility on a motion to dismiss).

III. DISCUSSION

As already noted, Defendants raise two arguments in support of their motion – one which goes to patent-eligibility and one which raises a plausibility challenge to Plaintiff's allegation that claim 15 is being infringed. The Court will begin with the eligibility challenge and then address Defendants' argument as to claim 15.

A. Infringement of Claim 10

There are four categories of patent-eligible subject matter: processes, machines, manufactures, and compositions. 35 U.S.C. § 101. The Supreme Court has long recognized, however, that § 101 "contains an important implicit exception: Laws of nature, natural phenomena, and abstract ideas are not patentable." *Alice Corp. v. CLS Bank Int'l*, ⸻ U.S. ⸻, 134 S.Ct. 2347, 2354 (2014) (citation omitted). Section 101 patent eligibility challenges are resolved using the framework set out by the Supreme Court in *Mayo Collaborative Servs. v. Prometheus Labs., Inc.*, 566 U.S. 66 (2012), and further refined in *Alice*, 134 S. Ct. at 2354. The first step in this inquiry is to determine whether the claims at issue are "directed to a patent-ineligible concept." *Id.* at 2355 (citing *Mayo*, 132 S. Ct. at 1289). If so, the Court must then "consider the elements of each claim both individually and 'as an ordered combination' to determine whether the additional elements 'transform the nature of the claim' into a patent-eligible application." *Id.* (quoting *Mayo*, 132 S. Ct. at 1297).

1. *Alice* Step 1

a. The Law

The Court must first determine whether claim 10 is directed to an abstract idea. This "category embodies 'the longstanding rule' that '[a]n idea of itself is not patentable.'" *Id.* at 2355 (quoting *Gottschalk v. Benson*, 409 U.S. 63, 67 (1972)). "The Supreme Court has not established a definitive rule to determine what constitutes an 'abstract idea' sufficient to satisfy the first step of the *Mayo/Alice* inquiry." *Enfish, LLC v. Microsoft Corp.*, 822 F.3d 1327, 1334 (Fed. Cir. 2016). But, under existing precedent, we at least know that "fundamental economic and conventional business practices are often found to be abstract ideas, even if performed on a computer." *Id.* at 1335. At the same time, "[t]he Supreme Court has suggested that claims 'purport[ing] to improve the functioning of the computer itself,' or 'improv[ing] an existing technological process' might not succumb to the abstract idea exception." *Id.* (quoting *Alice*, 134 S. C.t at 2358-59). In light of those pronouncements, the Federal Circuit has found it helpful "to ask whether the claims are directed to an improvement to computer functionality" as opposed to "a process that qualifies as an 'abstract idea' for which computers are invoked merely as a tool." *Id.* at 1335-36.

In determining whether the claim at issue is directed to an abstract idea, the Court must also be careful not to oversimplify because "[a]t some level, 'all inventions ... embody, use, reflect, rest upon, or apply laws of nature, natural phenomena, or abstract ideas.'" *Alice*, 134 S. Ct. at 2354 (quoting *Mayo*, 132 S. Ct. at 1293). "Rather, the 'directed to' inquiry applies a stage-one filter to claims, considered in light of the specification, based on whether 'their character as a whole is directed to excluded subject matter.'" *Enfish*, 822 F.3d at 1335 (quoting *Internet Patents Corp. v. Active Network, Inc.*, 790 F.3d 1343, 1346 (Fed. Cir. 2015)).

b. Application

Defendants argue that "Claim 10 is directed at the abstract idea of receiving and varying operating parameters of a metal detector[.]" ECF No. 23 at 6. As they state elsewhere in their brief, the claim "describe[s] nothing more than a longstanding practice of updating the existing data of a computer by transmitting the data from an external data source." *Id.* at 14. Even before the '586 patent, they contend, metal detector users could perform this function by "sharing their best parameters with a less skilled user verbally or on a piece of paper." ECF No. 27 at 5. "All that Claim 10 does is to computerize that process in lieu of a one-on-one approach." *Id.*

The fatal flaw with Defendants' argument, however, is that it overgeneralizes the nature of the '586 patent. Considering the claims as a whole, in light of the specification, the Court concludes that they are not directed to an abstract idea. On the contrary, the method in claim 10 requires the use of a specific type of metal detector, which, according to the specification, differs from prior art detectors in that it "allows the operator to alter attributes of the detector which are not user-alterable in prior art detectors." '586 patent, col. 7, ll.13-21. The metal detector claimed in the '586 patent also includes, among other features, internal memory, a receiver that can wirelessly receive data from an external source, and the processing capability to modify the operating parameters of the detector to conform to the data that has been wirelessly received by the detector. The method in claim 10, when performed using the specific metal detector described in claim 1, results in an improvement upon existing metal detector technology, rendering the claim eligible for protection under § 101.

The cases on which Defendants rely do not convince the Court otherwise. As Plaintiff aptly points out, each of those cases involved business methods implemented on a generic computer. The claims in *Open Parking, LLC v. ParkME, Inc.*, No. 2:15-CV-976, 2016 WL

3547957, at *1 (W.D. Pa. June 30, 2016), for example, involved a generic "wireless communications device capable of accessing the Internet" – not the type of specific, improved metal detector technology we have here. So, too, in *Tranxition, Inc. v. Lenovo Inc.*, 664 F. App'x 968, 971 (Fed. Cir. 2016). The claim there only described a method for automatically migrating settings from an old computer to a new computer, a process that could already be manually performed by users. Unlike in this case, the computer was invoked merely as a tool to make that process more efficient.

Moreover, contrary to Defendants' contentions, the claimed method could not be performed by two people exchanging metal detector settings in writing or verbally because the specific metal detector described in claim 1 is necessary to allow those settings to be stored on the detector and altered. While a detectorist could share their settings with one another before the advent of the '586 patent, she would have to manually alter those settings each time she wanted to use her detector. With the metal detector claimed in the '586, though, those settings can be stored in the detector for use at a later time. Again, this amounts to an improvement in metal detecting technology, so Defendants' step-one argument is rejected.

2. Alice Step 2

a. The Law

Even if it were directed to an abstract idea, the claims would pass muster under the second step of the *Alice* framework. At *Alice* step two, the Court, "[c]onsidering the elements of each claim both individually and as an ordered combination," must consider whether there are "additional elements" that present an "inventive concept," which "transform the nature of the claim into a patent-eligible application" by demonstrating it is "significantly more than a patent upon the ineligible concept itself." *Alice*, 134 S. Ct. at 2355. Clearing this hurdle requires more

than just stating an abstract idea and adding the words "apply it." *Id.* at 2357. The claims must contain additional features that amount to more than "well-understood, routine, conventional activity." *Mayo*, 132 S. Ct. at 1298. At the same time, "[i]t is well-settled that mere recitation of concrete, tangible components is insufficient to confer patent eligibility to an otherwise abstract idea." *TLI*, 2016 WL 2865693, at *5. Likewise, "the mere recitation of a generic computer cannot transform a patent-ineligible abstract idea into a patent-eligible invention." *Alice*, 134 S. Ct. at 2358.

b.   Application

According to Defendants, "[t]he claims in effect preempt the basic transmission of data from a remote source to a metal detector, and are not directed to any special technological or computer problem." (ECF No. 23 at 7). "Other than disclosing conventional and off the shelf hardware and software, the '586 Patent does not point to any unique or novel features for arranging the elements of the Subject Claims. All that the inventors set out to do and, more importantly, claimed was to enable a metal detector to receive updated operating parameters, store the parameters and modify existing parameters so that it operates with the updated set of operating parameters." (*Id.* at 13).

Once again, there is more to it than that. In determining whether the claim includes an inventive concept, the Court finds it helpful to look to the machine-or-transformation test, which, the Federal Circuit has said can provide "a 'useful clue' in the second step of the *Alice* framework." *Ultramercial, Inc. v. Hulu*, LLC, 772 F.3d 709, 716 (Fed. Cir. 2014) (citing *Bilski v. Kappos*, 561 U.S. 593, 610–11 (2010); *Bancorp Servs., L.L.C. v. Sun Life Assurance Co. of Can.*, 687 F.3d 1266, 1278 (Fed. Cir. 2012)). Under the machine-or-transformation test, "[a] claimed process can be patent-eligible under § 101 if: '(1) it is tied to a particular machine or apparatus,

or (2) it transforms a particular article into a different state or thing.'" *Id.* (quoting *In re Bilski*, 545 F.3d 943, 954 (Fed. Cir. 2008)). Also, "the use of a specific machine or transformation of an article must impose meaningful limits on the claim's scope to impart patent-eligibility." *In re Bilski*, 545 F.3d at 961. To "impose a meaningful limit on the scope of a claim," the machine "must play a significant part in permitting the claimed method to be performed, rather than function solely as an obvious mechanism for permitting a solution to be achieved more quickly, *i.e.*, through the utilization of a computer for performing calculations." *SiRF Tech., Inc. v. Int'l Trade Comm'n*, 601 F.3d 1319, 1333 (Fed. Cir. 2010)

On this point, the Federal Circuit's decision in *SiRF* is instructive. That case involved two patents related to GPS navigation technology. *Id.* at 1322. The first claim involved a method by which a GPS receiver could "calculate its position without having to wait to receive time information from a satellite, thereby allowing the receiver to calculate its position more quickly and even in weak-signal environments." *Id.* at 1323. The second claim "extend[ed] the solution of the [first claim] from the discrete calculation of a GPS receiver's position at a particular moment to the use of a 'dynamic model' that allows the improved, repeated calculation of a GPS receiver's position as it changes over time." *Id.* Rejecting the contention that the claims were directed to an abstract idea, the Federal Circuit held that "GPS receiver is a machine and is integral to each of the claims at issue." *Id.* at 1332. Because it was "clear that the methods at issue could not be performed with the use of a GPS receiver[,]" the court held that the claims were directed to patentable subject matter. *Id.* The court also found that the presence of the GPS receiver meaningfully limited the scope of the claims: the method simply could not "be performed without a machine," the court explained. *Id.*

The same is true here. An improved metal detector of the type described in claim 1 is integral to the operation of the claimed method. As explained in the preamble to claim 10, the claim is expressly directed to "[a] method for operating a metal of a type which includes the ability to select values of operating parameters and to store each such values as data[.]" '586 patent, col. 9, ll. 22-24. Without a metal detector capable of allowing a user to "select the value of operating parameters" that can store those values as date in memory contained within the metal detector, the claimed method cannot be performed. Thus, the Court concludes that claim 10 contains an inventive concept and survives the second step of the *Alice* inquiry.

On a final note, Defendants raise numerous arguments as to the novelty and unconventionality of the claimed metal detector, but these matters are not "for the § 101 inquiry which focuses only on abstractness and transformation." *Open Parking*, 2016 WL 3547957, at *9; *see also Verint Sys. Inc. v. Red Box Recorders Ltd.*, No. 14-CV-5403 (KBF), 2016 WL 7156768, at *1 (S.D.N.Y. Dec. 7, 2016) (explaining that whether a claim "is novel or obvious is not at issue" in a motion to dismiss under § 101); *2–Way Computing, Inc. v. Grandstream Networks, Inc.*, No. 216CV01110RCJPAL, 2016 WL 6090726, at *3 (D. Nev. Oct. 18, 2016) ("not[ing] that the question under § 101 and *Alice Corp.* is not whether the invention or some variation thereof has been long-practiced—the doctrines of anticipation and obviousness under pre–AIA §§ 102 and 103, respectively, govern such challenges").

B. Infringement of Claim 15

Defendants assert that Plaintiff has not alleged enough facts to make this infringement claim plausible. Recall that claim 15, which depends from claim 10, describes a metal detector "wherein the operating parameters include one or more of" a set of four elements. Under Defendants' proposed claim construction, the phrase "one or more of" means that each of the

four elements must be present. However, Plaintiff "fails to allege that the DEUS product's operating parameters include" two of the required elements, ECF No. 23 at 24, so in Defendants' view, this claim should be dismissed. Plaintiff, quite sensibly, says that "[a] plain reading of claim 15 is that it requires one or more of elements a, b, c, and d," so Plaintiff only needs to plead that Defendants infringe one of those elements to state a claim. ECF No. 24 at 25.

The Court finds that Defendants' argument is premature at this stage. Plaintiff raises a plausible construction of claim 15 and has pled sufficient facts to allege a claim under that construction.[1] In view of that, the Court will allow this claim to survive.

IV.   CONCLUSION

For the foregoing reasons, Defendants' Motion to Dismiss will be denied. An appropriate Order will issue.

Mark R. Hornak
United States District Judge

Dated: June 28, 2017

cc: All counsel of record

---

[1] Defendants rely on *SuperGuide Corp. v. DirecTV Enterprises, Inc.*, 358 F.3d 870, 885 (Fed. Cir. 2004), for the proposition that "one or more of" means that all four elements must be present. But they read too much into that case. While the Federal Circuit did determine that the phrase "at least one of" had Defendants' proposed meaning, the court's holding was tailored to the facts before it: the phrase "at least one of" preceded a list that consisted of four categories, each of which comprised many possible values. Based on a grammatically proper reading of the phrase "at least one of," the Federal Circuit concluded that the phrase "requir[ed] that the user select at least one value for each category[.]" *Id.* at 886. The same cannot be said for the list of elements in this case. In any event, it would be premature for this Court to definitively rule on this claim construction question at this juncture, which has not been fully fleshed out by the parties.